

REMARKS

Claims 13-27 and 40-42 are all the claims pending in the application.

Claims 13-27 and 40-42 have been rejected under 35 U.S.C. § 103(a) as being obvious over the PCT parent application on which Canadian Patent No. 2,383,334 to Tanaka et al is based. The PCT application was published as WO 01/16027 on March 8, 2001.

The Examiner relies on the Canadian patent as a translation of the WO '027 publication.

Applicants submit that WO 01/16027 does not disclose or suggest the subject matter of the presently claimed invention and, accordingly, request withdrawal of this rejection.

Applicants have amended independent claims 13, 18 and 23, which are the independent claims being examined, to recite that a low rutile titanium oxide having a rutile content of 5% or less is obtained, as disclosed, for example, at page 8, lines 9-10 of the present specification. As disclosed in the present specification, low rutile content cannot be obtained when a high reactor temperature is employed because transformation to rutile occurs. See page 19, lines 32-37. Similarly, when the high-temperature residence time is too long, transformation to rutile occurs as disclosed at page 20, first paragraph. Thus, the present invention sets forth a combination of a specified reaction temperature and a specified residence time to obtain a low rutile content titanium oxide.

The Examiner asserts that the WO publication discloses the present invention with ranges that overlap the ranges that are set forth in the present claims. The Examiner states that the overlapping portion of a claimed range in a prior art reference range is *prima facie* obvious.

The ranges which the Examiner asserts are overlapping include:

(i) the reaction temperature of 900°C to less than 1000°C set forth in the present claims, which overlaps the reaction temperature of greater than 600°C set forth in WO '027, and

(ii) the reaction time of from 0.005 to 0.05 seconds set forth in the present claims, as compared to the reaction time of 0.5 seconds and less set forth in WO '027.

With respect to the reactor temperature, Example 1 of WO '027 employed a reaction temperature of 1320°C, Example 2 employed a reaction temperature of 1200°C, and Example 3 employed a reaction temperature of 1250°C. None of these reactor temperatures are within the scope of claim 1. The reaction temperature in these Examples of WO '027 which is closest to range set forth in the present claims is the 1200°C temperature in Example 2 of WO '027.

Comparative Example 3 of the present application employed a reaction temperature of 1200°C, which is the same reaction temperature as employed in Example 2 of WO '027, and a residence time of 0.04 seconds. Comparative Example 3 of the present application, thus, provides a basis for comparison with Example 2 of WO '027 to Tanaka et al. Comparative Example 3 achieved a rutile content of 12%, and therefore did not achieve the effect of the present invention.

Example 2 of WO '027 employed a residence time of 0.2 seconds or less. Comparative Example 1 of the present specification employed a residence time of 0.2 seconds, and thus provides another basis for comparison with Example 2 of WO '027. Comparative Example 1 also had a rutile content of 11%, and therefore, did not achieve the effect of the present invention.

On the other hand, the combination of a specified reaction temperature and a specified residence time achieves the effect of the present invention. The combination set forth in the present claims and the effect thereof are not disclosed or suggested by WO '027.

Accordingly, as can be seen from the above, the present claims achieve unexpected results compared to WO '027.

In view of the above, applicants submit that WO '027 does not disclose or suggest the subject matter of the presently claimed invention and, accordingly, request withdrawal of this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

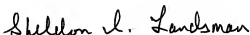
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